



# **THE HEALTH CARE WORKFORCE IN EIGHT STATES: EDUCATION, PRACTICE AND POLICY**

**Spring 2002**

## **OHIO**

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# **The Health Care Workforce in Eight States: Education, Practice and Policy**

## **PROJECT DESCRIPTION**

Historically, both federal and state governments have had a role in developing policy to shape the health care workforce. The need for government involvement in this area persists as the private market typically fails to distribute the health workforce to medically underserved and uninsured areas, provide adequate information and analysis on the nature of the workforce, improve the racial and ethnic cultural diversity and cultural competence of the workforce, promote adequate dental health of children, and assess the quality of education and practice.

It is widely agreed that the greatest opportunities for influencing the various environments affecting the health workforce lie within state governments. States are the key actors in shaping these environments, as they are responsible for:

- financing and governing health professions education;
- licensing and regulating health professions practice and private health insurance;
- purchasing services and paying providers under the Medicaid program; and
- designing a variety of subsidy and regulatory programs providing incentives for health professionals to choose certain specialties and practice locations.

Key decision-makers in workforce policy within states and the federal government are eager to learn from each other. This initiative to compile in-depth assessments of the health workforce in 8 states is an important means of insuring that states and the federal government are able to effectively share information on various state workforce data, issues, influences and policies.

Products of this study include individual health workforce assessments for each of the eight states and a single assessment that compares various data and influences across the eight states. In general, each state assessment provides the following:

- 1) A summary of health workforce data, available resources and a description of the extent the state invests in collecting workforce data. [Part of this information has been provided by the Bureau of Health Professions];
- 2) A description of various issues and influences affecting the health workforce, including the state's legislative and regulatory history and its current programs, financing and policies affecting health professions education, service placement and reimbursement, planning and monitoring, and licensure/regulation;
- 3) An assessment of the state's internal capacity and existing strategies for addressing the above workforce issues and influences; and
- 4) An analysis of the policy implications of the state's current workforce data, issues, capacity and strategies.

The development of the project's data assimilation strategy, content and structure was guided by an expert advisory panel. Members of the advisory panel included both experts in state workforce policy (i.e., workforce planners, researchers and educators) and, more broadly, influential state health policymakers (i.e., state legislative staff, health department officials). The advisory panel has helped to ensure the workforce assessments have an appropriate content and effective format for dissemination and use by both state policymakers and workforce experts/officials.

# **STUDY METHODOLOGY**

## **Study Purpose and Audience**

Key decision-makers in workforce policy within states and the federal government are eager to learn from each other. Because states increasingly are being looked to by the federal government and others as proving grounds for successful health care reform initiatives, new and dynamic mechanisms for sharing innovative and effective state workforce strategies between states and with the federal government must be implemented in a more frequent and far reaching manner. This initiative to compile comprehensive capacity assessments of the health workforce in 8 states is an important means of insuring that states and the federal government are able to effectively share information on various state workforce data, issues and influences.

Each state workforce assessment report is not intended to be voluminous; rather, information is presented in a concise, easy-to-read format that is clearly applicable and easily digestible by busy state policymakers as well as by workforce planners, researchers, educators and regulators.

## **Selection of States**

NCSL, with input from HRSA staff, developed a methodology for identifying and selecting 8 states to assess their health workforce capacity. The methodology included, but was not limited to, using the following criteria:

- a. States with limited as well as substantial involvement in one or more of the following areas: statewide health workforce planning, monitoring, policymaking and research;
- b. States with presence of unique or especially challenging health workforce concerns or issues requiring policy attention;
- c. States with little involvement in assessing health workforce capacity despite the presence of unique or especially challenging health workforce concerns or issues requiring policy attention;
- d. Distribution of states across Department of Health and Human Services regions;
- e. States with Bureau of Health Professions (BHP) - supported centers for health workforce research and distribution studies;
- f. States with primarily urban and primarily rural health workforce requirements; and
- g. States in attendance at BHP workforce planning workshops or states that generally have interest in workforce modeling.

## **Collection of Data**

NCSL used various means of collecting information for this study. Methods exercised included:

- a. Phone and mail interviews with state higher education, professions regulation, and recruitment/retention program officials;
- b. Custom data tabulations by national professional trade associations and others (i.e., Quality Resource Systems, Inc.; Johns Hopkins University School of Public Health) with access to national data bases;
- c. Tabulations of data from the most recent edition of federal and state government databases (e.g., National Health Service Corps field strength);
- d. Site visit interviews with various officials in the ten profile states;
- e. Personal phone conversations with other various state and federal government officials;
- f. Most recently available secondary data sources from printed and online reports, journal articles, etc.; and
- g. Comments and guidance from members of the study's expert advisory panel.

## STATE SUMMARY

Ohio's population of more than 11 million persons largely resides in urban communities. The percentage of the population that is minority or ethnic is below the national average. The state's population enjoys better access to health care than the country as a whole. The proportion of Ohio residents without health insurance as well as the percentage living in primary care and dental health professional shortage areas (HPSAs) is below the national average. Although the ratio of physicians and dentists to the total population is just under national figures, the state's ratio of nurses and pharmacists exceeds the U.S. average.

Statewide public sector efforts to address shortages in the health care workforce largely have been minimal. Government initiatives to improve the recruitment and retention of health professionals in rural and medically underserved communities are rated by some Ohio officials as having less than a superior impact. However, the state's small physician and nurse loan repayment program appears to have had success at retaining participants in shortage areas beyond their service obligation. There also has been little state-level attention to collecting and analyzing information on Ohio's health workforce to better understand supply and demand issues. Various officials believe that the statewide information that is available on the health workforce is not useful or is inaccurate.

In November 2000, growing concerns by the aging and long-term care community (an influential political force in Ohio) about the increasing shortages particularly of nurse and home health aides and its impact on quality of care prompted the governor to convene a summit on shortages in the health care workforce. That same month, a Department of Health task force on improving access to dental care issued a report making recommendations.

Discussion and recommendations from these initiatives increased public awareness of the issue. In 2001, the Legislature created a health care workforce shortage task force as part the 2002-2003 biennium budget to study the shortage issue and to propose a statewide plan to address the problem. Major health professions stakeholders are represented on the task force that plans to meet monthly until June 2002 when a report of findings and recommendations to the Legislature is required. It is not clear whether the work of these task forces will be acted upon the Legislature. In early 2002, the governor laid out plans to address the state's \$1.5 budget deficit. The proposed plan includes \$600 million in budget cuts and \$465 million in tax increases.

It is not clear to what extent the state has a nursing shortage. Anecdotal reports suggest that a major shortage is evolving, but most licensed nurses in the state are working in nursing. Little statewide data on supply and demand is available. Otherwise, efforts to explicitly address nursing workforce concerns appear to be minimal. Nursing school enrollment as well as slots has dropped in the past few years, creating new concerns about educational capacity for nursing in the state. New state funds to expand capacity are not likely in the near term, given Ohio's budget constraints. Fiscal limitations are also likely prevent from passing pending legislation that would establish a nursing education reimbursement program and exempt the salaries of certain nurses from personal income tax. Also, the state's nurse loan repayment program is not well advertised and thus appears to be underutilized. In 2000, Ohio became the last state in the nation to grant advanced practice nurses prescriptive privileges.

Anecdotal reports suggest that Ohio suffers more from a geographic maldistribution of dentists than from an overall shortage in supply. The dental access task force that convened in 2000 issued several recommendations intended to improve access to the dental workforce, including raising Medicaid payment rates and developing various incentives to increase the supply of dentists willing to serve vulnerable populations. State budget problems are likely to prevent state action on these recommendations in the near term.

# I. WORKFORCE SUPPLY AND DEMAND

Arguably, it is most important initially to understand the marketplace for a state's health care workforce. How many health professionals are in practice statewide and in medically underserved communities? What are the demographics of the population served? How is health care organized and paid for in the state? This section attempts to answer some of these questions by presenting state-level data collected from various sources.

**Table I-a.**

POPULATION		OH	U.S.
Total Population (2000)		<b>11,353,140</b>	281,421,906
Sex (2000)	% Female	<b>51.4</b>	50.9
	% Male	<b>48.6</b>	49.1
Age (2000)	% less than 18	<b>25.4</b>	25.7
	% 18-64	<b>61.3</b>	61.9
	% 65 or over	<b>13.3</b>	12.4
% Minority/Ethnic (1997-1999)		<b>14.6</b>	29.1
% Metropolitan (2000)*		<b>81.2</b>	79.9

\* As defined by the U.S. Office of Management and Budget

Sources: U.S. Census Bureau, AARP.

**Fourteen percent of Ohio residents are minorities.**

**Table I-b.**

PROFESSION UTILIZATION	OH	U.S.
% Adults who Reported Having Routine Physical Exam Within Past Two Years (1997)	<b>84.4</b>	83.2 (Median)
Average # of Retail Prescription Drugs per Resident (1999)	<b>10.4</b>	9.8
% Adults who Made Dental Visit in Preceding Year by Annual Family Income (1999):		
Less than \$15,000	<b>43</b>	
\$15,000 - \$34,999	<b>61</b>	
\$ 35,000 or more	<b>83</b>	

Sources: CDC, AARP, GAO.

**Less than half of Ohio adults with annual family incomes lower than \$15,000 reported visiting a dentist in 1999.**

**Table I-c.**

<b>ACCESS TO CARE</b>		<b>OH</b>	<b>U.S.</b>
% Non-elderly (under age 65) Without Health Insurance	1999-2000	<b>12</b>	16.0
	1997-1999	<b>12</b>	18.0
% Children Without Health Insurance	1999-2000	<b>9</b>	12.0
	1997-1999	<b>10</b>	14.0
% Not Obtaining Health Care Due to Cost (2000)		<b>10.4</b>	9.9
% Living in Primary Care HPSA (2001)		<b>13.1</b>	19.9
# Practitioners Needed to Remove Primary Care HPSA Designation (2001)		<b>153</b>	--
% Living in Dental HPSA (2001)*		<b>9.1</b>	13.7
# Practitioners Needed to Remove Dental HPSA Designation (2001)		<b>178</b>	--

HPSA = Health Professional Shortage Area

\* It is commonly believed that there are additional areas in the state that may be eligible to receive HPSA designation.

Sources: KFF, AARP, BPHC-DSD.

**Ohio has a lower proportion of children and non-elderly who are uninsured and a smaller percentage of people living in primary care and dental HPSAs than the U.S. as a whole.**

**Table I-d**

<b>PROFESSIONS SUPPLY</b>				
<b>Profession</b>		<b># Active Practitioners</b>	<b># Active Practitioners per 100,000 Population</b>	
			<b>OH</b>	<b>U.S.</b>
Physicians (1998)		<b>21,400</b>	<b>190.4</b>	198
Physician Assistants (1999)		<b>794</b>	<b>7.1</b>	10.4
Nurses	RNs (2000)	<b>100,144</b>	<b>882</b>	782
	LPNs (1998)	<b>33,140</b>	<b>294.9</b>	249.3
	CNMs (2000)	<b>183</b>	<b>1.6</b>	2.1
	NPs (1998)	<b>2,904</b>	<b>25.8</b>	26.3
	CRNAs (1997)	<b>1,147</b>	<b>10.2</b>	8.6
Pharmacists (1998)		<b>8,960</b>	<b>79.7</b>	65.9
Dentists (1998)		<b>5,151</b>	<b>45.8</b>	48.4
Dental Hygienists (1998)		<b>6,230</b>	<b>55.4</b>	52.1
% Physicians Practicing Primary Care			<b>28.0</b> (30.0 U.S.)	
% Registered Nurses Employed in Nursing			<b>82.3</b> (81.7 U.S.)	
% of MDs Who Are International Medical Graduates (IMGs)			<b>26.0</b> (24.0 U.S.)	

RN= Registered Nurse, LPN= Licensed Practical Nurse, CNM= Certified Nurse Midwife, NP= Nurse Practitioner  
CRNA= Certified Registered Nurse Anesthetist

Source: HRSA-BHPr.

**Less than 30% of Ohio physicians are practicing primary care.**

**Table I-e.**

<b>NATIONAL HEALTH SERVICE CORPS (NHSC) FIELD STRENGTH</b>			
Total Field Strength (FY 2001) * Includes mental/behavioral health officials	% in Urban Areas	% in Rural Areas	# Per 10,000 Population Living in HPSAs
<b>55</b>	<b>47</b>	<b>53</b>	<b>0.37</b> (0.49 U.S.)
<i>Field Strength by Profession</i>			
Physicians	<b>35</b>		
Nurses	<b>7</b>		
Physician Assistants	<b>0</b>		
Dentists/Hygienists	<b>10</b>		

HPSA= Health Professional Shortage Area

Source: BHPr-NHSC.

**Ohio's ratio of National Health Service Corps professionals per 10,000 HPSA population is below the national average.**

**Table I-f.**

<b>MANAGED CARE</b>				
Penetration Rate of Commercial and Medicaid HMOs (as % of total population), 2000			<b>OH</b>	<b>U.S.</b>
			<b>24.7</b>	<b>28.1</b>
Profession	MCOs required by state to include profession on their provider panel*	Profession allowed by state to serve as primary care provider in MCOs	Profession allowed by state to coordinate primary care as part of a standing referral	Profession allowed by state to engage in collective bargaining with MCOs
Physicians	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>No</b>
Nurses	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Pharmacies	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Dentists	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
State requires certain individuals enrolled in MCOs to have direct access to certain specialty (OB/GYN, etc.) providers.				<b>Yes</b>
State requires certain individuals enrolled in MCOs to receive a standing referral to a specialist (OB/GYN, etc.).				<b>Yes</b>

MCOs = Managed Care Organizations HMOs = Health Maintenance Organizations OB/GYN = Obstetrician/Gynecologist

\* This requirement does not preclude MCOs from including additional professions on their provider panels.

Sources: HPTS, AARP.

**One quarter of Ohio residents receive their health care from an HMO.**



**Table I-g.**

<b>REIMBURSEMENT OF SERVICES</b>					
<b>Medicaid</b>	Profession	% Active Practitioners Enrolled	% Enrolled Receiving Annual Payments Greater Than \$10,000 <sup>1</sup>	Increase of 10% or More in Overall Payment Rates 1995-2000	Bonus or Special Payment Rate for Practice in Rural or Medically Underserved Area
	Physicians	*	<b>21.4</b>	<b>Yes</b>	<b>No</b>
	NPs	*	<b>14.7</b>	<b>Yes</b>	<b>No</b>
	Dentists	<b>24.8</b>	<b>29.7</b>	<b>Yes</b>	<b>No</b>
	# of Enrolled Pharmacies				<b>2,692</b>
	% Change in Physician Fees (All Services), 1993-1998				<b>16.97</b>
	Recent State-Mandated Payment Increases				<b>None</b>
<b>Medicare</b>	# Active Practitioners Enrolled (2000)				<b>25,709</b>
	% Practitioners who Accept Fee as Full Payment (2001)				<b>94.2</b>

<sup>1</sup> Generally seen as an indicator of significant participation in the Medicaid program.

<sup>2</sup> Denominator number from HRSA State Health Workforce Profile, December 2000.

\* Numerator data for physicians and nurse practitioners from state Medicaid agencies were unusable: many professionals were apparently double-counted, perhaps due to varying participation in different health plans.

*Sources:* State Medicaid programs, Norton and Zuckerman "Trends", HPTS, AARP.

**The period of 1993-1998 saw a 17% increase in Medicaid physician fees in Ohio.**

## II. HEALTH PROFESSIONS EDUCATION

State efforts to help ensure an adequate supply of health professionals can be understood in part by examining data on the state's health professions education programs—counts of recent students and graduates, amounts of state resources invested in education, and other factors. State officials can gauge how well these providers reflect the state's population by also examining how many students and graduates are state residents or minorities. Knowing to what extent states are also investing in primary care education and how many medical school graduates remain in-state to complete residencies in family medicine is also important.

**Table II-a.**

<b>UNDERGRADUATE MEDICAL EDUCATION</b>			
# of Medical Schools ( <i>Allopathic and Osteopathic</i> )	<b>8</b>	Public Schools	<b>7</b>
		Private Schools	<b>1</b>
		Osteopathic Schools	<b>1</b>
# of Medical Students ( <i>Allopathic and Osteopathic</i> )	1997-1998	<b>4,905</b>	
	1999-2000	<b>4,877</b>	
# Medical Students per 100,000 Population <sup>1</sup>	1999-2000	<b>43.0</b>	
% Newly Entering Students ( <i>Allopathic</i> ) who are State Residents, 1999-2000		<b>88.6</b>	
Requirement for Students in Some/All Medical Schools to Complete a <i>Primary Care Clerkship</i>	By the State	<b>No</b>	
	By Majority of Schools	<b>Yes</b>	
# of Medical School Graduates ( <i>Allopathic and Osteopathic</i> )	1998	<b>1,198</b>	
	2000	<b>1,153</b>	
# Medical School Graduates per 100,000 Population <sup>1</sup>	2000	<b>10.2</b>	
% Graduates ( <i>Allopathic</i> ) who are Underrepresented Minorities, 1994-1998		<b>13.74</b> (10.5 U.S.)	
% 1987-1993 Medical School Graduates ( <i>Allopathic</i> ) Entering Generalist Specialties		<b>29.45</b> (26.7 U.S.)	
State Appropriations to Medical Schools ( <i>Allopathic and Osteopathic</i> ), 1999-2000	Total	<b>\$ 220.2 million</b>	
	Per Student	<b>\$ 45,141</b>	

<sup>1</sup> Denominator number is state population from 2000 U.S. Census.

Sources: AAMC, AAMC Institutional Goals Ranking Report, AACOM, Barzansky et al. "Educational Programs", State higher education coordinating boards.

**Nearly 90% of newly entering medical students in Ohio are state residents.**

Table II-b.

<b>GRADUATE MEDICAL EDUCATION (GME)</b>		
# of Residency Programs ( <i>Allopathic and Osteopathic</i> ), 1999-2000 <sup>1</sup>		<b>414</b>
# of Physician Residents ( <i>Allopathic and Osteopathic</i> ), 1999-2000 <sup>1</sup>		<b>4,737</b>
# Residents Per 100,000 Population, 1999-2000		<b>41.7</b>
% Allopathic Residents from In-State Medical School, 1999-2000		<b>31.1</b>
% Residents who are International <sup>2</sup> Medical Graduates, 1999-2000		<b>26.2</b> (26.4 U.S.)
Requirement to Offer Some or All Residents a <i>Rural Rotation</i>	By the State	<b>No</b>
	By Most Primary Care Residencies	<b>No</b>
State Appropriations for Graduate Medical Education, 1996-1997 <sup>4,5</sup>	Total	<b>Data not available</b>
	Per Resident	<b>Data not available</b>
<i>Medicaid</i> Payments for Graduate Medical Education, 1998 <sup>3</sup>		<b>\$ 115.7 million</b>
	Payments as % of Total Medicaid Hospital Expenditures	<b>13.3</b> (7.4 U.S.)
	Payments Made Directly to Teaching Programs Under Capitated Managed Care	<b>No</b>
	Payments Linked to State Workforce Goals/Goals of Improved Accountability	<b>No</b>
<i>Medicare</i> Payments for Graduate Medical Education, 1998 <sup>3</sup>		<b>\$ 368.11 million</b>

<sup>1</sup> Includes estimated number of osteopathic residencies/residents not accredited by the Accreditation Council for Graduate Medical Education.

<sup>2</sup> Does not include residents from Canada.

<sup>3</sup> Explicit payments for both direct and indirect GME cost.

<sup>4</sup> Funds largely are for graduate education.

<sup>5</sup> Dollar amounts refer largely to funding for family medicine training programs. However, these funds that flow directly to teaching hospitals are not necessarily earmarked by the state for graduate medical education.

Sources: AMA, AMA [State-level Data](#), AACOM, State higher education coordinating boards, Henderson "Funding", Oliver et al. "State Variations."

**Ohio Medicaid payments for GME represent a higher percentage of the state's total Medicaid hospital expenditures than the national average.**

Table II-c.

FAMILY MEDICINE RESIDENCY TRAINING			
# of Residency Programs, 2001	24	# Residencies Located in Inner City	5
		# Residencies Offering Rural Fellowships or Training Tracks	1
# of Family Medicine Residents, 1999-2000			126
# Family Medicine Residents per 100,000 Population <sup>1</sup>			1.1
% Graduates ( <i>from state's Allopathic and Osteopathic medical schools</i> ) who were First Year Residents in Family Medicine, 1995-2000			19.2 (14.8 U.S.)
% Graduates ( <i>from state's Allopathic medical schools</i> ) Choosing a Family Medicine Residency Program Who Entered an In-State Family Medicine Residency, 1995-2000			53.4 (48.1 U.S.)
State Appropriations for Family Medicine Training, <sup>2</sup> 1995-1996		Total	\$ 5.8 million
		Per Residency Slot	\$ 48,247

<sup>1</sup> Denominator number is state population from 2000 U.S. Census.

<sup>2</sup> Dollar amounts refer largely to funding family medicine training programs. However, these funds that flow directly to teaching hospitals are not necessarily earmarked by the state for graduate medical education.

*Sources:* AAFP, AAFP State Legislation, Kahn et al., Pugno et al. and Schmittling et al. "Entry of U.S. Medical School Graduates".

**Over half of Ohio graduates choosing a family medicine residency training program entered an in-state family medicine residency.**

Table II-d.

NURSING EDUCATION				
# of Nursing Schools	53	Public Schools		35
		Private Schools		18
# of Nursing Students <sup>1</sup> 1998-2000	10,295	# Associate Degree, 1998-1999		4,271
		# Baccalaureate Degree	1998-1999	4,915
			1999-2000	4,100
		# Masters Degree	1998-1999	1,056
			1999-2000	1,316
		# Doctoral Degree	1998-1999	53
			1999-2000	251
		# Per 100,000 population <sup>2</sup>		
# of Nursing School Graduates <sup>1</sup> 1999-2000	4,053	# Associate Degree, 1999		1,993
		# Baccalaureate Degree	1999	1,739
			2000	1,438
		# Masters Degree	1999	314
			2000	443
		# Doctoral Degree	1999	7
			2000	20
		# Per 100,000 population <sup>2</sup>		
State Appropriations to Nursing Schools (Baccalaureate, Masters and Doctoral), 1998-1999		Per Student: \$ 5,574 (2 schools reporting)		

<sup>1</sup> Annual figure for Associate, Baccalaureate, Masters and Doctoral students/graduates for most recent years available.

<sup>2</sup> Denominator number is the state population from the 2000 U.S. Census.

Sources: NLN, AACN, State higher education coordinating boards.

**Enrollment in baccalaureate degree nursing programs in Ohio declined from 1999 to 2000. The number of graduates from these programs also dropped.**

**Table II-e.**

<b>PHARMACY EDUCATION</b>			
# of Pharmacy Schools	<b>4</b>	Public Schools	<b>3</b>
		Private Schools	<b>1</b>
# of Pharmacy Students, 2000-2001	<b>1,605</b>	# Baccalaureate Degree	<b>575</b>
		# Doctoral Degree ( <i>PharmD</i> )	<b>1,030</b>
	# Per 100,000 population*		<b>14.1</b>
# of Pharmacy Graduates, 2000	<b>398</b>	# Baccalaureate Degree	<b>333</b>
		# Doctoral Degree ( <i>PharmD</i> )	<b>65</b>
	# Per 100,000 population*		<b>3.5</b>

\* Denominator number is state population from 2000 U.S. Census.

Source: AACP.

**Table II-f.**

<b>PHYSICIAN ASSISTANT EDUCATION</b>		
# of Physician Assistant Training Programs, 2000-2001		<b>5</b>
# of Physician Assistant Program Students, 2000-2001		<b>175</b>
# Physician Assistant Program Students per 100,000 Population <sup>1</sup>		<b>1.5</b>
# of Physician Assistant Program Graduates, 2001		<b>87</b>
# Physician Assistant Program Graduates per 100,000 Population <sup>1</sup>		<b>0.8</b>
State Appropriations for Physician Assistant Training Programs, 2000-2001 <sup>2</sup>	Total	<b>0</b>
	Per Student	<b>0</b>
	As % of Total Program Revenue	<b>0</b>

<sup>1</sup> Denominator number is state population from 2000 U.S. Census.

<sup>2</sup> In general, state appropriations are not directly earmarked for these programs, but rather to their sponsoring institutions.

Sources: APAP, APAP Annual Report.

**Table II-g.**

<b>DENTAL EDUCATION</b>			
# of Dental Schools	<b>2</b>	Public Schools	<b>1</b>
		Private Schools	<b>1</b>
# of Dental Students, 2000-2001	<b>662</b>		
# Dental Students per 100,000 Population*	<b>5.8</b>		
# of Dental Graduates, 2000	<b>155</b>		
# Dental Graduates per 100,000 Population*	<b>1.4</b>		
State Appropriations to Dental Schools, 1998-1999	Per Student: <b>\$ 22,000</b>		
	As % of Total Revenue: <b>39.8</b> (31.6 U.S.)		

\* Denominator number is state population from 2000 U.S. Census.

Source: ADA.

**Table II-h.**

<b>DENTAL HYGIENE EDUCATION</b>			
# of Dental Hygiene Training Programs	<b>12</b>	Public Schools	<b>12</b>
		Private Schools	<b>0</b>
# of Dental Hygiene Program Students, 1997-1998	<b>511</b>		
# Dental Hygiene Program Students per 100,000 Population*	<b>4.5</b>		
# of Dental Hygiene Program Graduates, 1998	<b>192</b>		
# Dental Hygiene Program Graduates per 100,000 Population*	<b>1.7</b>		

\* Denominator number is state population from 2000 U.S. Census.

Sources: ADHA, AMA Health Professions.

### III. PHYSICIAN PRACTICE LOCATION

The following tables examine in-state physician practice location from two different vantage points: (1) of all physicians who were trained (went to medical school or received their most recent GME training) in the state between 1975 and 1995, and (2) of all physicians who are now practicing in the state, regardless of where they were trained. Compiled from the American Medical Association's 1999 Physician Masterfile by Quality Resource Systems, Inc., the data importantly illustrates to what extent physician graduates practice in many of the state's small towns, using the rural-urban continuum developed by the U.S. Department of Agriculture.

#### PRACTICE LOCATION (URBAN/ RURAL) OF PHYSICIANS WHO RECEIVED THEIR ALLOPATHIC MEDICAL SCHOOL TRAINING IN OHIO BETWEEN 1975 AND 1995.

Table III-a.

OHIO		
Number of physicians who were trained in OH and who are now practicing in OH as a percentage of all physicians practicing in OH.		43.28
Number of physicians who were trained in OH and are practicing in OH, by practice location (metro code <sup>1</sup> ), as a percentage of all physicians practicing in OH.	#00	40.62
	#01	53.88
	#02	45.14
	#03	40.37
	#04	52.19
	#05	40.00
	#06	49.46
	#07	47.00
	#08	100.00
	#09	0.00
Number of physicians who were trained in OH and who are now practicing in OH as a percentage of all physicians who were trained in OH.		43.34
Number of physicians who were trained in OH and are practicing in OH, by practice location (metro code <sup>1</sup> ), as a percentage of all physicians trained in OH.	#00	42.82
	#01	68.56
	#02	48.31
	#03	16.79
	#04	61.51
	#05	4.26
	#06	44.55
	#07	20.98
	#08	11.11
	#09	0.00

<sup>1</sup> 1995 Rural/Urban Continuum Codes for Metro and Nonmetro Counties. Margaret A. Butler and Calvin L. Beale. Agriculture and Rural Economy Division, Economic Research Service, U.S. Department of Agriculture.

*Codes # 00-03 indicate metropolitan counties:*

00: Central counties of metro areas of 1 million or more

01: Fringe counties of metro areas of 1 million or more

02: Counties with metro areas of 250,000 - 1 million

03: Counties in metro areas of less than 250,000

NA: Not Applicable; no counties in the state are in the R/U Continuum Code

*Codes # 04-09 indicate non-metropolitan counties:*

04: Urban population of 20,000 or more, adjacent to metro area

05: Urban population of 20,000 or more, not adjacent to metro area

06: Urban population of 2,500-19,999, adjacent to metro area

07: Urban population of 2,500-19,999, not adjacent to metro area

08: Completely rural (no place w population > 2,500), adjacent to metro area

09: Completely rural (no place w population > 2,500), not adjacent to metro area



**PRACTICE LOCATION (URBAN/ RURAL) OF PHYSICIANS WHO RECEIVED THEIR MOST RECENT GME TRAINING IN OHIO BETWEEN 1978 AND 1998.**

**Table III-b.**

OHIO		
Number of physicians who received their most recent GME training in OH and who are now practicing in OH <b>as a percentage of all physicians practicing in OH.</b>		<b>59.66</b>
Number of physicians who received their most recent GME training in OH and are practicing in OH, <b>by practice location</b> (metro code <sup>1</sup> ), <b>as a percentage of all physicians practicing in OH.</b>	#00	62.01
	#01	64.53
	#02	57.83
	#03	43.79
	#04	49.29
	#05	55.17
	#06	56.85
	#07	51.64
	#08	50.00
	#09	0.00
Number of physicians who received their most recent GME training in OH and who are now practicing in OH <b>as a percentage of all physicians who were trained in OH.</b>		<b>48.40</b>
Number of physicians who received their most recent GME training in OH and are practicing in OH, <b>by practice location</b> (metro code <sup>1</sup> ), <b>as a percentage of all physicians trained in OH.</b>	#00	53.54
	#01	65.82
	#02	49.47
	#03	15.25
	#04	53.41
	#05	4.98
	#06	40.58
	#07	17.85
	#08	3.03
	#09	0.00

<sup>1</sup> 1995 Rural/Urban Continuum Codes for Metro and Nonmetro Counties. Margaret A. Butler and Calvin L. Beale. Agriculture and Rural Economy Division, Economic Research Service, U.S. Department of Agriculture.

*Codes # 00-03 indicate metropolitan counties:*

00: Central counties of metro areas of 1 million or more

01: Fringe counties of metro areas of 1 million or more

02: Counties with metro areas of 250,000 - 1 million

03: Counties in metro areas of less than 250,000

*Codes # 04-09 indicate non-metropolitan counties:*

04: Urban population of 20,000 or more, adjacent to metro area

05: Urban population of 20,000 or more, not adjacent to metro area

06: Urban population of 2,500-19,999, adjacent to metro area

07: Urban population of 2,500-19,999, not adjacent to metro area

08: Completely rural (no place w population > 2,500), adjacent to metro area

09: Completely rural (no place w population > 2,500), not adjacent to metro area

*NA: Not Applicable; no counties in the state are in the R/U Continuum Code.*

## IV. LICENSURE AND REGULATION OF PRACTICE

States are responsible for regulating the practice of health professions by licensing each provider, determining the scope of practice of each provider type and developing practice guidelines for each profession. The tables below illustrate the licensure requirements for each of the health professions covered in this study as well as additional information on recent expansions in scope of practice or other novel regulatory measures taken by the state.

**Table IV-a.**

PHYSICIANS	
LICENSURE REQUIREMENTS	Graduation from approved medical school; passing score on approved examination.
LICENSURE REQUIREMENTS: <i>INTERSTATE TELE-CONSULTATION</i>	Visiting faculty license or special activities certificate required.
STATE MANDATES INDIVIDUAL PROFESSION PROFILES TO BE PUBLICLY ACCESSIBLE	<b>Yes.</b>

Sources: State licensing board, HPTS.

**Table IV-b.**

PHYSICIAN ASSISTANTS	
LICENSURE REQUIREMENTS	Current National Commission on Certification of Physician Assistants (NCCPA) certificate; Graduation from approved PA program.
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	<p><i>PRESCRIPTIVE AUTHORITY</i> No.</p> <p><i>PHYSICIAN SUPERVISION</i> Physician not required to be physically present but must be available for consultation.</p>

Source: State licensing board.

**Table IV-c.**

<b>NURSES</b>	
LICENSURE REQUIREMENTS	<p><b>Registered Nurses (RNs)</b> Graduate from approved professional nursing program and pass the National Council Licensing Examination (NCLEX).</p> <p><b>Advanced Practice Nurses (APNs)</b> Hold current Ohio license to practice nursing as a registered nurse, have completed ducation program in advanced practice, practiced 1000 hours per year for three years as a registered nurse, and have current certification from national certifying organization.</p> <p><b>Licensed Practical Nurses (LPNs)</b> Graduate from approved practical nursing program and pass the NCLEX examination.</p>
LICENSURE REQUIREMENTS: <i>FOREIGN-TRAINED NURSES</i>	Have completed a professional nursing education program; present evidence of having completed the nursing education program by requesting a course-by-course report from the Credentialing Evaluation Service of the Commission of Graduates of Foreign Nursing Schools (CGFNS); have a working knowledge of spoken English.
LICENSURE REQUIREMENTS: <i>INTERSTATE TELE-CONSULTATION</i>	<b>Full License.</b>
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	<p><b><i>PRESCRIPTIVE AUTHORITY</i></b> Prescriptive authority for all APNs except CRNAs. Rules are pending.</p> <p><b><i>PHYSICIAN SUPERVISION</i></b> A university pilot program to grant prescriptive authority for APNs practicing in underserved areas was in place, but will not be needed based on the new law granting prescriptive authority.</p>
RECENT STATE REQUIREMENTS TO IMPROVE WORKING CONDITIONS IN CERTAIN INSTITUTIONS	No.
STATE MANDATES INDIVIDUAL PROFESSION PROFILES TO BE PUBLICLY ACCESSIBLE	No.

Sources: State licensing board, AANA, ACNM, Pearson “Annual Legislative Update”, HPTS.

**Table IV-d.**

<b>DENTISTS</b>	
LICENSURE REQUIREMENTS	Proof of graduation from an accredited school of dentistry; A "Final Report Card" from the National Board of Dental Examiners.
LICENSURE REQUIREMENTS: <i>INTERSTATE TELE-CONSULTATION</i>	<b>Full License.</b>

Source: State licensing board.

**Table IV-e.**

<b>PHARMACISTS</b>	
LICENSURE REQUIREMENTS	Graduate from an approved school of pharmacy, have completed 1,500 hours of licensed internship and pass the license examination of the Ohio Board of Pharmacy.
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	<b>Yes.</b> In consultation agreements with a physician, pharmacists can manage therapy. Also in hospitals and long term-care facilities. Pharmacists can also provide immunizations.
STATE MANDATES INDIVIDUAL PROFESSION PROFILES TO BE PUBLICLY ACCESSIBLE	<b>No.</b>

Source: State licensing board.

**Table IV-f.**

<b>DENTAL HYGIENISTS</b>	
LICENSURE REQUIREMENTS	Proof of graduation from an accredited school of or dental hygiene; A "Final Report Card" from the National Board of Dental Examiners.
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	<p><i>PRESCRIPTIVE AUTHORITY</i> No.</p> <p><i>DENTIST SUPERVISION</i> <b>Yes.</b> Permissible practice without a dentist for special needs program or clinic under general supervision rule. Dentist on duty does not need to be physically present. Dental hygienists are limited to a 15-day period without dentist supervision.</p>

Source: State licensing board, ADHA.

## **Glossary of Acronyms**

CNM: Certified nurse midwife.

CRNA: Certified registered nurse anesthetist.

NP: Nurse practitioner.

## V. IMPROVING THE PRACTICE ENVIRONMENT

States have the challenge of not only helping to create an adequate supply of health professionals in the state, but also ensuring that those health professionals are distributed evenly throughout the state. Various programs and incentives are used by states to encourage providers to practice in rural and other underserved areas. The tables in this section describe Ohio's programs as well as the perceived effectiveness of these programs.

### RECRUITMENT/ RETENTION INITIATIVES

Table V-a.

INITIATIVE	In Use	Perceived or Known Impact (1= high, 5= low)	Health Professions Affected					
			Physicians	Nurses	Pharmacists	Dentists	Dental Hygienists	Physician Assistants
FOCUSED ADMISSIONS / RECRUITMENT OF STUDENTS FROM RURAL OR UNDERSERVED AREAS	No							
SUPPORT FOR HEALTH PROFESSIONS EDUCATION (stipends, preceptorships) IN UNDERSERVED AREAS	Yes	3.5	X	X		X		
RECRUITMENT / PLACEMENT PROGRAMS FOR HEALTH PROFESSIONALS	Yes	N/A	X	X				
PRACTICE DEVELOPMENT SUBSIDIES (i.e., start-up grants)	No							
MALPRACTICE PREMIUM SUBSIDIES	No							
TAX CREDITS FOR RURAL / UNDERSERVED AREA PRACTICE	No							
PROVIDING SUBSTITUTE PHYSICIANS ( <i>locum tenens</i> support)	No							
MALPRACTICE IMMUNITY FOR PROVIDING VOLUNTARY OR FREE CARE	Yes	5	X	X	X	X	X	X
PAYMENT BONUSES / OTHER INCENTIVES BY MEDICAID OR OTHER INSURANCE CARRIERS	No							
MEDICAID REIMBURSEMENT OF TELEMEDICINE	No							

N/A = Data was not available

Source: State health officials.

Ohio grants malpractice immunity to all the major health professions which provide voluntary or free care. However, state officials rate the impact of the program as very low.

## LOAN REPAYMENT/ SCHOLARSHIP PROGRAMS \*

**Table V-b.**

Program Type	Number of Programs	Number of Annual Participants	Average Retention Rate	Eligible Health Professions					
				Physicians	Nurses	Pharmacists	Dentists	Dental Hygienists	Physician Assistants
LOAN REPAYMENT	2	9	75%	X	X				
SCHOLARSHIP	0	0	N/A*						

\* Includes only state-funded programs which require a service obligation in an underserved area. (NHSC state loan repayment programs are included since the state provides funding.)

N/A\* = Data was not applicable

*Source:* State health officials.

## WORKFORCE PLANNING ACTIVITIES\*

Table V-c.

ACTIVITY	In Use	Health Professions Affected					
		Physicians	Nurses	Pharmacists	Dentists	Dental Hygienists	Physician Assistants
COLLECTION / ANALYSIS OF PROFESSIONS SUPPLY DATA:  FROM <u>PRIMARY</u> SOURCES (e.g., licensure renewal process; other survey research)	No						
	No						
FROM <u>SECONDARY</u> SOURCES (e.g., state-based professional trade associations)							
PRODUCTION OF RECENT STUDIES OR REPORTS THAT DOCUMENT / EVALUATE THE SUPPLY, DISTRIBUTION, EDUCATION OR REGULATION OF HEALTH PROFESSIONS	No						
RECENT REGULATORY ACTIONS INTENDED TO REQUIRE OR ENCOURAGE COORDINATION OF POLICIES AND DATA COLLECTION AMONG HEALTH PROFESSIONS GROUPS OR LICENSING BOARDS	Yes	X	X	X	X	X	X

\* One state health official supplied these responses. Therefore, data may be limited and may not accurately reflect all current workforce-planning activities in the state.

**Ohio recently took action to require coordination of policies and data collection among health professions groups and licensing boards. The policy affects all of the health professions.**

## VI. EXEMPLARY WORKFORCE LEGISLATION, PROGRAMS AND STUDIES

The following abstracts describe several of Ohio's recent endeavors to understand and describe the status of the state's current health care workforce.

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### Legislation and Programs

#### **HB-94 (2001)**

Created a Health Care Workforce Shortage Task Force as part of the 2002-03 Biennium Budget Bill. Responsibilities of the task force are: 1) review the licensing standards of all health care professionals; 2) identify strategies to increase recruitment, retention, and development of qualified health care professionals and health care workers in health care settings; 3) develop recommendations for improving scopes of practice; 4) develop possible demonstration projects to present technologies potential to increase efficiency; and 5) recommend education strategies to meet health care workforce needs. The report of findings and recommendations is required no later than July 1, 2002.

#### **Hospital Workforce Forum**

*Ohio Hospital Association, 2001*

The Ohio Hospital Association developed this web forum to work force issues in Ohio hospitals. The forum includes information on the current nursing shortage, staffing resources, career day materials, and information on licensure requirements for Ohio health care providers. The forum can be found at [www.ohanet.org/workforce](http://www.ohanet.org/workforce).

### Studies

#### **Report to Governor Taft on the Governor's Summit: Health Care Workforce Shortage** *Ohio Department of Aging, March 2001*

Participants in the governor's summit met in November 2000 with three goals in mind. They were to 1) increase public awareness of the health care workforce shortage; 2) develop, identify and share best practices; and 3) develop an ongoing structure for collaborative efforts to resolve and reduce the effects of the healthcare workforce shortage. The summit developed strategies for recruitment, retention and education as well as alternatives to service delivery.

Recommendations included:

##### Recruitment:

- Develop a statewide mobility model that provides access to education while preserving standards of individual schools;
- Establish a collaborative to plan and monitor the effectiveness of the health care workforce;
- Increase funding for training and recruitment.

##### Retention:

- Empower employees in the workplace and involve them in decisions;
- Increase attention to staffing levels, safety, and ergonomics;
- Reform regulatory legislation.

##### Education:

- Develop statewide pre-employment training (PET) programs;
- Incorporate attendant care needs into the Vo-tech health care continuum;



- Community Colleges develop statewide advanced credit for students who complete health tech-prep programs in high school. Give employers incentive to offer tuition reimbursement.

Alternative Service Delivery Issues:

- Develop and expand “ticket to work” Medicaid coverage plan;
- Explore adult day care as an option during the assessment process and explain the benefits of the adult day services to clients;
- Obtain grants from the state to pay for new technology.

### **Recommendations of the Director of Health’s Task Force on Access to Dental Care**

*Ohio Department of Health, November 2000*

The taskforce was convened to study and make recommendations for improving access to dental care for vulnerable Ohioans. Their recommendations include 1) restructuring the Medicaid dental program through privatization, increased reimbursement, and expanded eligibility; 2) increasing the number of quality dentists who provide services to vulnerable population through financial incentives, loan repayment and scholarship programs, tax incentives, funding of clinic development, and operating subsidies; 3) supporting community partnerships and oral health infrastructure by making population-based oral health data available at the local level and building on existing school-based programs; and 4) increasing public awareness of oral health and dental care access issues using professional developed education campaigns and targeting key public audiences. The taskforce also suggested steps for improving the cultural competency of the dental workforce.

### **The 1998 Ohio Dental Association Membership Survey**

*Ohio Dental Association, 1998*

Section VIII of this survey provides data on members’ dental practices including the percentage participating in Medicaid, amount of revenues generated from Medicaid, and employment of dental hygienists and dental assistants.

### **HRSA State Health Workforce Profile**

*Bureau of Health Professions, December 2000*

The State Health Workforce Profiles provide current data on the supply, demand, distribution, education and use of health care professionals in each state. Each state profile has an overview of the health status of state residents and health services within the state. In addition the profiles have breakdowns of health care employment by place of work and profession.

<http://bhpr.hrsa.gov/healthworkforce/profiles/default.htm>

## VII. POLICY ANALYSIS

### **Organizations with Significant Involvement in Health Workforce Analysis/Development**

- **Ohio Department of Health**
- **Ohio Department of Aging**
- **Ohio Health Care Association**
- **Ohio Hospital Association**
- **Ohio Nurses Association**
- **Ohio Board of Nursing**

**Evidence of Collaboration:** Minimal (Largely associated with workforce supply assessment and analysis)

Ohio's population of more than 11 million persons resides largely in urban communities. The percentage of the population that is minority or ethnic is below the national average.

The state's population enjoys better access to health care than the country as a whole. The proportion of Ohio residents without health insurance, as well as the percentage living in primary care and dental health professional shortage areas (HPSAs), is below the national average. Although the ratio of physicians and dentists to the total population is less than national figures, the state's ratio of nurses and pharmacists exceeds the U.S. average. However, the number of National Health Service Corps professionals per 10,000 HPSA population is below the national mark.

About 60 percent of physicians who completed their graduate medical education in Ohio remain in the state to practice. Just under 90 percent of all newly entering students to the state's seven allopathic medical schools are state residents, and the proportion of medical school graduates who are underrepresented minorities and enter generalist specialties exceeds national averages. A healthy proportion of the state's physicians appear to participate in the Medicaid program, thanks in part to some recent increases in their payment rates. Ohio now mandates that individual profiles of all licensed physicians be made available to the public.

Statewide public sector efforts to address shortages in the health care workforce have been minimal until recent years. Government initiatives to improve the recruitment and retention of health professionals in rural and medically underserved communities are rated by some Ohio officials as having less than a superior impact. However, the state's small physician and nurse loan repayment program appears to have had success at retaining participants in shortage areas beyond their service obligation. There has also been little state-level attention to collecting and analyzing information on Ohio's health workforce to better understand supply and demand issues. Various officials believe that the statewide information that is available on the health workforce is not useful or is inaccurate.

In November 2000, growing concerns by the aging and long-term care community (an influential political force in Ohio) about the increasing shortages (particularly of nurse and home health aides)—and their impact on quality of care—prompted the governor to convene a summit on the shortage issue. Concurrently, there were concerns that health workforce needs were not being adequately represented in the agenda of the state's new federally-funded workforce policy commission. That same month, a Department of Health task force on improving access to dental care issued a report making recommendations. Discussion and recommendations from these initiatives increased public awareness of the issue. In 2001, the Legislature created a health care workforce shortage task force as part the 2002-

2003 biennium budget to study the shortage issue and to propose a statewide plan to address the problem. Major health professions stakeholders are represented on the task force that plans to meet monthly until June 2002 when a report of findings and recommendations to the Legislature is required.

It is not clear whether the work of these task forces will be acted upon the Legislature. In early 2002, the governor laid out plans to address the state's expected large budget deficit in the coming fiscal year. The proposed plan includes \$600 million in budget cuts, including ideas for reducing certain Medicaid benefits, and \$465 million in tax increases.

Meanwhile, the state hospital association has established its own task force to address health workforce issues. Much of this task force's work appears to be focused on short-term strategies by member hospitals and does not give significant attention to public policy solutions.

## **Nursing**

The initiative by the state hospital association and other groups to establish a health workforce shortage task force in part was intended to steer attention away from an effort by the state nursing association to support passage of controversial legislation that would limit mandatory overtime for nurses. The legislation was never enacted.

It is not clear to whether the state has an overall nursing shortage. Anecdotal reports suggest that a major shortage is evolving, but most licensed nurses in the state are working in nursing. Little statewide data on supply and demand is available. Efforts to explicitly address nursing workforce concerns appear to be minimal. Nursing school enrollment as well as slots has dropped in the past few years, creating new concerns about educational capacity. New state funds to expand capacity are not likely in the near term, given Ohio's budget constraints. Fiscal limitations are also likely to prevent passage of legislation that would establish a nursing education reimbursement program and exempt the salaries of certain nurses from personal income tax. Also, the state's nurse loan repayment program is not well advertised and thus appears to be underutilized.

In 2000, the board of nursing proposed the creation of a statewide comprehensive nursing workforce planning center as part of the board's budget. The center's purpose (similar to a nursing center operating in North Carolina) would be to address some underlying issues associated with shifts in nurse supply and demand and examine long-term solutions. It would be funded by an additional tax on nurse licensure fees. Because the center's planned revenue was perceived as a tax increase by many state policymakers, the proposal has been defeated for now. The board is looking elsewhere for support of the center.

In 2000, Ohio became the last state in the nation to grant advanced practice nurses prescriptive privileges. It is not clear what impact this has had on the population ratio of the state's nurse practitioners which remains below the national average.

## **Dentists**

Anecdotal reports suggest that Ohio suffers more from a geographic maldistribution of dentists than from an overall shortage in supply. As in other states, the dental workforce is rapidly nearing retirement, particularly in rural communities. The lack of a state loan repayment program for dentists along with a high debt load prevent many graduating dentists from participating in Medicaid. Just a fourth of all dentists in the state see Medicaid patients.

The dental access task force that convened in 2000 issued several recommendations intended to improve access to the dental workforce. These include raising Medicaid payment rates and developing various

incentives to increase the supply of dentists willing to serve vulnerable populations. State budget problems are likely to prevent state action on these recommendations in the near term.

### **Pharmacists**

Although Ohio still appears to have an overall sufficient supply of pharmacists, access to pharmacy services is at risk. In many rural counties of Ohio, pharmacists are not available. The vacancy rate in many hospitals is rising rapidly. Class size in some or all of the state's four schools of pharmacy is increasing.

In addition, Ohio and other states are considering making cuts in such payments for prescriptions that make up a growing proportion of Medicaid program costs and contribute to current budget deficits in many states. The move to make reductions has been prompted in part by a recent U.S. Department of Health and Human Services Office of Inspector General report that found that states were overpaying pharmacies by more than \$1 billion annually and recommending that states reduce Medicaid pharmacy payments by about 10 percent.

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